

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



INSERT DATE

Mr. Steve Linden
Plant Manager
Prysmian Cable and Systems USA, LLC
2512 Penny Rd
Claremont NC, 28610

Dear Mr. Linden,

SUBJECT: Air Quality Permit No. 07334T28
Facility ID: 1800419
Prysmian Cable and Systems USA, LLC
Claremont, Catawba County
Fee Class: Title V
PSD Status: Major

In accordance with your completed Air Quality Permit Application for a combined minor modification received March 21, 2018 and significant modification received May 8, 2018 of a Title V permit, we are forwarding herewith Air Quality Permit No. 07334T28 to Prysmian Cable and Systems USA, LLC, at 2512 B Penny Road in Claremont, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q 317503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source. If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

Mr. Steve Linden

INSERT DATE

Page 2

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Catawba County has triggered increment tracking under PSD for PM₁₀. This modification will result in an increase in 0.25 pounds per hour of PM₁₀.

This Air Quality Permit shall be effective from INSERT DATE until February 28, 2019, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

The changes made to the permit are summarized in the attachment to this letter. Should you have any questions concerning this matter, please contact please contact Mr. David Hughes, at (919) 707-8411 or david.hughes@ncdenr.gov.

Sincerely yours,

William D. Willets, P. E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Shannon Vogel – SSCB
Connie Horne – (cover letter only)
Heather Ceron, EPA Region 4 – (permit only)
Mooresville Regional Office
Central Files

ATTACHMENT to Permit No. 07334T28

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
I-AHU	Multiple roof top air handling units
I-boiler1, I-boiler2, I-boiler3, I-boiler4 MACT DDDDD	Four natural gas-fired boilers (two 8.0 million Btu per hour and two 8.76 million Btu per hour units)
I-ES-15	Collapse process hoods
I-ES-5	Prep hoods
I-ES-13, I-ES-13a, ES-13b	Three central vacuum systems
I-ES-10	Glass saw hoods
I-SD-1	Waste water sludge dryer
I-ES-7	Draw towers
I-Clean	Machine cleaning stations with 10 eight-gallon capacity acetone baths
I-BEL	Sixteen Buffering extruder lines
I-JEL	Eleven Jacketing extruder lines
I-JM	Jacket Melters
I-FH	Eight flame heaters for the jacket extruder lines (0.044 million Btu per hour each)
I-PL	Sixteen printing lines
I-RL	Six ribbon lines
I-FBW	Fluidized bed washer
I-PW	Parts washer
I-Draw Clean	Cleaning stations
I-WB-1, I-WB-2	Two hot water boilers (0.75 million Btu per hour each)
I-WB-3 MACT DDDDD	One hot water boiler (8.0 million Btu per hour)
I-SB MACT DDDDD	One steam boiler (2.1 million Btu per hour)
I-WH-1 and I-WH-2	Two domestic water heaters (0.75 million Btu per hour each)
I-ANNEAL	Annealing Furnace
I-CORRAL	One natural gas-fired corral lathe (0.10 million Btu per hour)
I-M-1 and I-M-2	Two natural gas-fired munters (2.4 million Btu per hour each)
I-FP MACT ZZZZ	Diesel-fired fire pump 105 HP
I-EmGen MACT ZZZZ	Diesel-fired emergency generator 150 HP
I-EmGen2 NSPS IIII	Diesel-fired emergency generator (1500kW)
I-EmGen3 NSPS IIII	Diesel-fired emergency generator (1500kW)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."

3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Prysmian Cables and Systems USA, LLC - Claremont, Air Permit No. 07334T27:

Page(s)	Section	Description of Change(s)
Cover letter	NA	Update permit revision number and issue date, revise insignificant activity list.
Permit cover	NA	Update permit revision number, issue date, application number.
3	Section 1	Modified table to reflect revised source description (ES-1). Removed ES-2. Added new source ES-Etch and control 4WS, etc.
5	Section 2.1 A	Revised source description for ES-1. Removed ES-2. Remove MACT avoidance and corrected CAM in the table.
6	Section 2.1 A.1.a	Revised source description for ES-1. Remove and replace testing requirement.
7	Section 2.1 A.1.a Section 2.1 A.1.b	Remove block valve requirements and ES-2.
8	Section 2.1 A.2.a	Require re-establishing normal as new CVD lathes are added for 02D .0521.
9	Section 2.1 A.2.b Section 2.1 B	Remove ES-2. Revise description and remove ES-2.
10-12	Section 2.1 C. Section 2.2 A.	Add Etching Operations (ES-Etch). Remove MACT Avoidance condition.
13	Section 2.2 B	Remove ES-2.
14	Section 2.2 B.1.i	Remove ES-2.
15	Section 2.2 C.	Remove ES-2.
17	Section 2.2 C.1.h	Remove ES-2.
18-20	Section 2.2 D Section 2.2 D.1 Section 2.2 D.1.c	Revise description. Add Etching Operations (ES-Etch). Remove previous table and insert new table based on toxics modeling. Remove stack testing requirement.
21-25	Section 2.3 A.1 Section 2.3 A.2 Section 2.3 A.3	Remove CAM stipulations. Remove HF as a CAM pollutant. Remove HF as a CAM pollutant.
26-35	Section 3	Insert latest version of General Conditions - version 5.3, 08/21/2018.



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
07334T28	07334T27	INSERT DATE	February 28, 2019

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: Pysmian Cables and Systems USA, LLC

Facility ID: 1800419

Facility Site Location: 2512 Penny Road
City, County, State, Zip: Claremont, Catawba County, NC 28610

Mailing Address: 2512 Penny Road
City, State, Zip: Claremont, Catawba County, NC 28610

Application Number: 1800419.18A and .18B

Complete Application Date: March 21, 2018

May 8, 2018

Primary SIC Code: 3229

Division of Air Quality, Mooresville
Regional Office Address: 610 East Center Avenue, Suite 301
Mooresville, NC 28115

Permit issued this the INSERT DATE

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCE (S) AND ASSOCIATED
AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1 Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2 Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
6, 12, 19, 22	ES-1, CAM ES-4-3WS ES-14 ES-11 ES-18	Chemical vapor deposition units - Cells 5, 6, and 7 Gas cabinets – Cells 5, 6, and 7 Collapse furnaces - Cells 5, 6, and 7 Chemical Room SiCl ₄ Storage Room	3WS	Wet scrubber (13,000 acfm) consisting of a variable throat venturi scrubber (10 to 15 inches water pressure drop) with greater than 90 gallons per minute caustic solution injection (pH 8 or higher as determined from source testing)
8, 18	ES-Etch	Etching Operations	4WS	Wet scrubber (3,254 acfm) consisting of a packed scrubber (2.5 to 5.0 inches water pressure drop) with greater than 264 gallons per minute of alkaline solution injection (pH 10.5)
6, 8, 10, 14, 17, 19, 23	ES-9 CAM	Over-cladding Units – Cell 4 and four Cell 5 units	IDS Or 1SCR	Fabric filter with hydrated lime injection (30 dry pounds per hour lime injection or higher as determined by testing; 9,800 square feet of filter area or greater) Ammonia injected catalytic NO _x reduction system (ID No. 1SCR space velocity 11,214 hr ⁻¹) with natural gas-fired flue gas re-heater (10 million Btu per hour heat input) and natural gas-fired ammonia injector dilution air heater (one million Btu per hour heat input) installed on 1DS
6, 10, 16	ES-9a CAM	Over-cladding Units - Cell 6, 7, and remaining Cell 5 units	2DS Or 2SCR	Fabric filter with hydrated lime injection (ID No. 2DS; 30 dry pounds per hour lime injection or higher as determined by testing; 9,800 square feet of filter area or greater) Ammonia injected catalytic NO _x reduction system (ID No. 2SCR; space velocity 11,214 hr ⁻¹) with natural gas-fired flue gas re-heater (10 million Btu per hour heat input) and natural gas-fired ammonia injector dilution air heater (one million Btu per hour heat input) installed on 2DS

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Chemical Vapor Deposition Units (ID No. ES-1) consisting of:

Cells 5, 6, and 7 with Gas cabinets (ID No. ES-4-3WS), Collapse Furnaces (ID No. ES-14), Chemical Room (ID No. ES-11) and SiCl₄ Bulk Storage Room (ID No. ES-18) venting to Wet Scrubber (ID No. 3WS)

Over-cladding Units (ID No. ES-9) consisting of:

Cells 4, and four Cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 1DS) venting to Selective Catalytic NO_x Reduction System (ID No. 1SCR)

Over-cladding Units (ID No. ES-9a) consisting of:

Cells 6, 7, and remaining Cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 2DS) venting to Selective Catalytic NO_x Reduction System (ID No. 2SCR)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	For process rates less than 30 tons per hour: $E = 4.10 P^{0.67}$ Where, E is the allowable emission rate in pounds per hour, and P is the process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Particulate Matter	<u>Affected Sources – ES-9 and ES-9a</u> Compliance Assurance Monitoring (CAM) See Sections 2.3 A. and B.	15A NCAC 02D .0614
Nitrogen Oxides	<u>Affected Sources - ES-9 and ES-9a</u> See Section 2.2 A. and B. Multiple Emissions Sources	15A NCAC 02Q .0317 (15A NCAC 02D .0530) PSD Avoidance Condition
Toxic Air Pollutants	State enforceable only Cl ₂ , HCl, HF, NH ₃ See Section 2.2 C. Multiple Emissions Sources	15A NCAC 02D .1100

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

Emissions of particulate matter from **(ID No. ES-1)** shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

Where; E = allowable emission rate in pounds per hour, and

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

a. Chemical Vapor Deposition Units (ID No. ES-1) and SiCl₄ Bulk Storage Room (ID No. ES-18)

Testing [15A NCAC 02Q .0508(f)]

- i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 1. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring [15A NCAC 02Q .0508(f)]

- ii. Particulate matter emissions from the chemical vapor deposition units **(ID No. ES-1)** shall be controlled by the wet scrubber system **(ID No. 3WS)**. To comply with the provisions of this Permit and ensure that optimum control efficiency is maintained, the Permittee shall establish an inspection and maintenance schedule/checklist based on manufacturer's recommendations. Additionally, a quarterly internal inspection shall be conducted on the wet scrubbers by the Permittee to insure structural integrity such that optimum control efficiency is achieved. As a minimum, the inspection and maintenance program shall include inspection of spray nozzles, packing material, chemical feed system, and the cleaning/calibration of all associated instrumentation.
- iii. The Permittee shall ensure the proper performance of the scrubber by monitoring the following operational parameters each shift:
ID No. 3WS
 (A) Recycle liquid flow rates (greater than 90 gallons per minute),
 (B) Liquid make-up flow rates (greater than 1 gallon per minute),
 (C) pH of recirculation tank scrubbing solution (pH 8 or higher as determined from source testing), and
 (D) Pressure drop across the scrubber (10 to 15 inches of water).
- iv. The Permittee shall be deemed in non-compliance with 02D .0515 if records of the monitoring results are not maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- v. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following each shift:
 (A) The date and time of each recorded action,
 (B) The results of each inspection,
 (C) The results of any maintenance performed on the scrubber system,
 (D) Any variance from manufacturer's recommendations, if any, and corrections made,
 (E) The recycle liquid flow rates,
 (F) Liquid make-up flow rates,
 (G) pH of the scrubber solutions, and
 (H) The pressure drop across the scrubber.
- vi. If the records are not maintained as per the above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.
- iv. The Permittee shall be deemed in non-compliance with 02D .0515 if records of the monitoring results are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- vii. The Permittee shall submit the results of any inspection, maintenance, or monitoring performed for each control device within 30 days of a written request by the DAQ.
- viii. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

b. Over-cladding Units (ID Nos. ES-9 and ES-9a)

Testing [15A NCAC 02Q .0508(f)]

- i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 1. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/ Recordkeeping [15A NCAC 02Q .0508(f)]

- ii. The Permittee shall ensure the proper performance of the lime injection/fabric filter system (**ID Nos. 1DS and 2DS**) by monitoring and recording the following operating parameters at least once per shift:
 - (A) Lime injection rate (minimum 30 dry pounds per hour) and
 - (B) Pressure drop across the fabric filter (0.1 to 9 inches of water).The above records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in non-compliance with 2.1 A.1. if records of the operating parameters are not maintained.
- iii. The Permittee shall perform inspections and maintenance of the fabric filters (**ID Nos. 1DS and 2DS**) as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - (A) A monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - (B) An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.
- iv. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - (A) The date and time of each recorded action;
 - (B) The results of each inspection;
 - (C) The results of any maintenance performed on the bagfilters; and
 - (D) Any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- v. The Permittee shall submit the results of any inspection, maintenance, and monitoring performed on the fabric filter and hydrated lime injection system within 30 days of a written request by the DAQ.
- vi. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

Visible emissions from this source group shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

a. Chemical Vapor Deposition Units (ID No. ES-1) and Over-cladding Units (ID No. ES-9 & ES 9a)

Testing [15A NCAC 02Q .0508(f)]

- i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- ii. The Permittee shall observe the emissions points to reestablish normal within 30 days-of the operation of each additional CVD lathe.
- iii. To ensure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - (A) take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2. above.

If the above-normal emissions are not corrected per (A) above or if the demonstration in (B) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]

- iv. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - (A) The date and time of each recorded action;
 - (B) The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - (C) The results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- v. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June, for each day of operation. The summary report shall consist of the following.
 - (A) Instances when visible emissions exceeded normal operating conditions and an explanation of each instance. The explanation should include any corrective actions taken to reduce visible emissions to normal.
 - (B) A statement that the required monitoring was or was not performed each day of operation. If required monitoring was not performed each day of operation, the summary report shall specify the dates and an explanation why the monitoring was not performed.

B. Over-cladding Units (ID No. ES-9) consisting of:

Cells 4, and four Cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 1DS), venting to Selective Catalytic NOx Reduction System (ID No. 1SCR)

Over-cladding Units (ID No. ES-9a) consisting of:

Cells 6, 7, and remaining Cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 2DS), venting to Selective Catalytic NOx Reduction System (ID No. 2SCR)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these source groups shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring, Recordkeeping, and Reporting Requirements

- c. No monitoring, recordkeeping or reporting is required for these sources.

C. Etching Operations (ID No. ES-Etch) venting to a Wet Scrubber (ID No. 4WS)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	Cl ₂ , HCl, HF, NH ₃ See Section 2.2 C. Multiple Emissions Sources	15A NCAC 02D .1100

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. Over-cladding Units (ID No. ES-9, excluding cell 5 units).

Two 8.76 million Btu per hour heat input natural gas-fired boilers (insignificant sources)

Insignificant Sources (0.75 million Btu per hour hot water boilers, sludge dryer, emergency fire pump, emergency generator, parts washer, two 0.129 million Btu per hour boilers and air handling units)

The following provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nitrogen Oxides	Total emissions of nitrogen oxides shall be less than 250 tons per consecutive 12-month period.	15A NCAC 02Q .0317 PSD Avoidance

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. Total emissions of nitrogen oxides from equipment in Cells 1, 2, 3, and 4 and two boilers shall be less than 250 tons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions exceed this limit.

Control Requirements

- b. To ensure compliance with the above emissions limits, nitrogen oxides from Over-cladding Units contained in **Cells 4 (ID No. ES-9, excluding cell 5 units)** shall be controlled by:
 - i. A fabric filter with hydrated lime injection (**ID No. 1DS**), **or**
 - ii. A fabric filter with hydrated lime injection (**ID No. 1DS**) in series with a selective catalytic NOx reduction system (**ID No. 1SCR**).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not controlled as provided above.

Testing Requirements [15A NCAC 02Q .0508(f)]

- c. Over-cladding Units
 - i. Uncontrolled NOx emissions from individual small and large torch Over-cladding Units (**Cells 4; ID No. ES-9**) shall be tested to determine emission rates in pounds of NOx per unit-hour to be used in demonstrating compliance with the PSD avoidance condition.
 - ii. Uncontrolled over-cladding emission rates must be revalidated annually by May 30 of each calendar year.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if uncontrolled NOx emissions from these sources are not tested and validated as provided above.

- d. Dry Scrubber System (Lime Injection and Fabric Filter)
 - i. NOx emissions from Over-cladding Units (**Cells 4; ID No. ES-9**) shall be tested prior to and after the dry scrubber control (**ID No. 1DS**) to determine the dry scrubber control efficiency used in demonstrating compliance with the PSD avoidance condition.
 - ii. Control efficiency of the dry scrubber system (lime injection and fabric filter) must be revalidated annually and each time the type of filter material is changed unless the Permittee assumes no fabric filter control for the purposes of compliance demonstration until further DAQ approved testing is conducted. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not tested and validated as provided above.
- e. SCR System
 - i. NOx emissions from Over-cladding Units (**Cells 4; ID No. ES-9**) shall be tested prior to and after the SCR control (**ID No. 1SCR**) to validate the data generated by the continuous NO and NO2 emission

analyzers. The control efficiency calculated from the test and the analyzers at the time of the test shall be within 5% to validate the analyzers.

- ii. Initial validation test results for SCR control efficiency must be submitted to the Regional Supervisor, DAQ, within 120 days (or alternate date approved by DAQ) of SCR (**ID No. 1SCR**) startup.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not tested as provided above.

f. **General**

Emissions testing is required. The testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.2 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring and Recordkeeping Requirements [15A NCAC 02Q .0508(f)]

- g. Continuous NO and NO2 emission analyzers shall be installed upstream and downstream of the SCR (**ID No. 1SCR**) to monitor emissions from the Over-cladding Units (**ID No. ES-9**) venting to and from the selective catalytic NOx reduction system (**ID No. 1SCR**).

- i. Analyzers shall be calibrated daily.

- ii. Measurements of NO and NO2 shall be recorded after calibration at the inlet and outlet monitors.

- iii. NO and NO2 concentrations at the inlet shall be summed and NO and NO2 concentrations at the outlet shall be summed for the determination of a daily control efficiency.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions are not monitored as provided above.

- h. Calculation of monthly NOx emissions shall be made at the end of each month. Facility-wide NOx emissions shall be determined by adding emissions from the insignificant sources using AP-42 emission factors, and the Over-cladding Units in Cells 4 (**ID No. ES 9**) including dry scrubber NOx control efficiency, if applicable, and the SCR control efficiency for periods when the SCR system was used. Calculation of NOx emissions using test data from (**ID No. ES 9**) shall be performed as follows:

- i. NOx emission from CVD process hoods shall be determined by multiplying operating hours for CVD units during the month by the pounds of NOx per unit-hour determined from source testing. Calculations shall be performed using the **highest** of the following values:

- (A) 0.41 pounds of NOx per unit-hour; or,

- (B) Any higher emission rate demonstrated by a stack test.

- ii. NOx emissions from Over-cladding Units in Cells 4 (**ID No. ES-9**) shall be determined by multiplying operating hours for each over-cladding unit group type by the pounds of NOx per unit-hour determined from source testing. The number of operating hours for small and large torch groups shall be a separate record. Emissions of NOx shall be calculated using the uncontrolled emission rate demonstrated in the most recent stack test, as provided in Section 2.2 A.1 c.

- iii. Inclusion of Dry Scrubber Emissions Reductions

- (A) Calculation of NOx emissions may include Dry Scrubber emissions reductions using the control efficiency of the fabric filter measured during source testing for the type of filter employed at the time of testing.

- (B) The control efficiency for the dry scrubber determined by DAQ-approved testing is valid if:

- 1. The NOx uncontrolled loading rate to the fabric filter which occurred during the test increases by no more than 25 percent, and

- 2. The lime injection rate is at or above the injection rate measured and recorded during the performance test.

- iv. Inclusion of SCR Emissions Reductions

- (A) Calculation of NOx emissions may include SCR emissions reductions during SCR operating periods. The daily control efficiency determined in accordance with 2.2A.1.e. shall be used to reduce the amount of uncontrolled emissions calculated per 2.2.A.1.c.ii on a daily basis.

1. If a daily measurement is not available during a period that the SCR is operational, the last available measurement shall be used in place of the missing data provided that the missing data does not exceed more than 25% of the data for any one-month period.
2. If a daily measurement is not available during a period that the SCR is operational, and the missing data exceeds more than 25% of the data for any one-month period, no control efficiency shall be assumed for that day.
3. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall establish an inspection and maintenance (I&M) schedule/checklist for the SCR based on manufacturer's recommendations. As a minimum, the I&M program will include an annual inspection of the burners, catalyst, the catalyst housing, and associated ducting to ensure structural integrity.

Operating hours for the SCR, Over-cladding Units, SCR control efficiency calculations, NOx emission calculations, inspection/calibration/maintenance of the NOx analyzers, inspection and maintenance of the SCR, and the total monthly amount of NOx emissions must be recorded in an emissions log. The Permittee shall make the log available to officials of the DAQ upon request. The emissions log must be kept on file for a minimum of five years. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records are not maintained.

Reporting Requirements[15A NCAC 02Q .0508(f)]

- i. Submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. Monthly NOx emissions for each of the previous 17 calendar months; and,
 - ii. 12-month rolling NOx emissions for each consecutive 12-month period ending in the previous six months.

B. Cells 5, 6, and 7 Equipment consisting of:

Over-cladding Units (ID No. ES-9a and cell 5 units in ES-9).

Two 8.0 million Btu per hour heat input natural gas-fired boilers;

Two 10.0 million Btu per hour SCR flue gas re-heaters; and,

Two 1.0 million Btu per hour SCR ammonia injector dilution air heaters.

The following provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nitrogen Oxides	Total emissions of nitrogen oxides shall be less than 250 tons per consecutive 12-month period.	15A NCAC 02Q .0317 PSD Avoidance

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The nitrogen oxides emissions increase due to equipment operation shall be less than 250 tons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions exceed this limit.

Control Requirements

- b. To ensure compliance with the above emissions limits, nitrogen oxides from Over-cladding Units contained in Cells 5, 6, and 7 shall be controlled by:
 - i. A fabric filter with hydrated lime injection (**ID No. 2DS**), **or**
 - ii. A fabric filter with hydrated lime injection (**ID No. 2DS**) in series with a selective catalytic NOx reduction system (**ID No. 2SCR**).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions are not controlled as provided above.

Testing Requirements [15A NCAC 02Q .0508(f)]

c. **New Technology Over-cladding Units**

- i. NOx uncontrolled emissions from individual new technology torch Over-cladding Units (**Cells 5, 6, and 7, ES-9a**) shall be tested to determine emission rates in pounds of NOx per unit-hour to be used in demonstrating compliance with the PSD avoidance condition.
- ii. The test results must be submitted to the Regional Supervisor within 120 days (or alternate date approved by DAQ) from the commencement of operation of the Over-cladding Unit (**ID No. 9a**).
- iii. Uncontrolled over-cladding emission rates must be revalidated annually.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not tested and validated as provided above.

d. **Dry Scrubber System (Lime Injection and Fabric Filter)**

- i. NOx emissions from Over-cladding Units (**Cells 5, 6, 7; ID No. ES-9a**) prior to and after the dry scrubber control (**ID Nos. 2DS**) shall be tested to determine dry scrubber control efficiency to be used in demonstrating compliance with the PSD avoidance condition.
- ii. The test results must be submitted to the Regional Supervisor within 120 days (or alternate date approved by DAQ) from the commencement of operation of the Over-cladding Unit (**ID No. 9a**).
- iii. Control efficiency of the dry scrubber system (lime injection and fabric filter) must be revalidated annually and each time the type of filter material is changed unless the Permittee assumes no fabric filter control for the purposes of compliance demonstration until further DAQ approved testing is conducted.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not tested and validated as provided above.

e. **SCR System**

- i. NOx emissions from Over-cladding Units (**Cells 5, 6, 7; ID No. ES-9a**) shall be tested prior to and after the SCR controls (**ID Nos. 2SCR**) to validate the data generated by the continuous NO and NO2 emission analyzers. The control efficiency calculated from the test and the analyzers at the time of the test shall be within 5% to validate the analyzers.
 - ii. Initial validation test results for SCR control efficiency must be submitted to the Regional Supervisor, within 120 days (or alternate date approved by DAQ) of SCR (**ID Nos. 2SCR**) startup.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions from these sources are not tested as provided above.

f. **General**

Emissions testing is required. The testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B. 1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring and Recordkeeping Requirements

- g. Continuous NO and NO2 emission analyzers shall be installed upstream and downstream of each SCR (**ID Nos. 2SCR**) to monitor emissions from the Over-cladding Units (**ID No. ES-9a**) venting to and from each selective catalytic NOx reduction system (**ID Nos. 2SCR**).
- i. Analyzers shall be calibrated daily.
- ii. Measurements of NO and NO2 shall be recorded after calibration at the inlet and outlet monitors.
- iii. NO and NO2 concentrations at the inlet shall be summed and NO and NO2 concentrations at the outlet shall be summed for the determination of a daily control efficiency.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if NOx emissions are not monitored as provided above.

- h. Calculation of monthly NOx emissions shall be made at the end of each month. Monthly NOx emissions shall be determined by adding calculated emissions from the Over-cladding Units (**ID No. ES-9a**) in Cells 5, 6, and 7 including dry scrubber NOx control efficiency, if applicable, and the SCR control efficiency for periods when the selective catalytic NOx reduction system was used, four boilers (two at 8.0 million Btu per hour heat input and two 8.76 million Btu per hour heat input), two SCR flue gas re-heaters (each 10.0 million Btu per hour heat input), and two SCR ammonia injector dilution air heaters (each 1.0 million Btu per hour heat input) as follows:
 - i. NOx emissions from boilers and SCR heaters shall be determined using current EPA AP-42 emissions factors and actual heat input rates.
 - ii. Uncontrolled NOx emission from Over-cladding Units (**ID No. ES 9a**) shall be determined by multiplying operating hours for Over-cladding Units by the uncontrolled pounds of NOx per unit-hour determined from source testing.
 - iii. Inclusion of Dry Scrubber Emissions Reductions
 - (A) Calculation of NOx emissions may include dry scrubber emissions reductions using the control efficiency measured during source testing for the type of filter employed at the time of testing.
 - (B) The control efficiency for the dry scrubber determined by DAQ approved testing is valid:
 - 1. If the NOx uncontrolled loading rate to the fabric filter which occurred during the testing required by 2.2.B.1.b is exceeded by no more than 25 percent, and
 - 2. The lime injection rate is at or above the injection rate measured and recorded during the performance testing required by 2.2.B.1.b.
 - iv. Inclusion of SCR Emissions Reductions
 - (A) Calculation of NOx emissions may include SCR emissions reductions during SCR operating periods. The daily control efficiency determined in accordance with 2.2 B.1.c.i. shall be used to reduce the amount of uncontrolled emissions calculated per 2.2 B.1.c.ii. on a daily basis.
 - 1. If a daily measurement is not available during a period that the SCR is operational, the last available measurement shall be used in place of the missing data provided that the missing data does not exceed more than 25% of the data for any one-month period.
 - 2. If a daily measurement is not available during a period that the SCR is operational, and the missing data exceeds more than 25% of the data for any one-month period, no control efficiency shall be assumed for that day.
 - v. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall establish an inspection and maintenance (I&M) schedule/checklist for the SCRs based on manufacturer's recommendations. As a minimum, the I&M program will include an annual inspection of the burners, catalyst, the catalyst housing, and associated ducting to ensure structural integrity.

Operating hours for the SCR, Over-cladding Units, SCR control efficiency calculations, NOx emission calculations, inspection/calibration/maintenance of the NOx analyzers, inspection and maintenance of the SCRs, and the total monthly amount of NOx emissions must be recorded in an emissions log. The Permittee shall make the log available to officials of the DAQ upon request. The emissions log must be kept on file for a minimum of five years. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0530 if records are not maintained.

Reporting Requirements

- i. Submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. Monthly NOx emissions for each of the previous 17 calendar months; and,
 - ii. 12-month rolling NOx emissions for each consecutive 12-month period ending in the previous six months.

C. Chemical Vapor Deposition Units (ID No. ES-1),

Gas Cabinets (ID No. ES-4), and Collapse Furnaces (ID No. ES-14) consisting of:

Cells 5, 6, and 7 with Wet Scrubber (ID No. 3WS); and,

Over-cladding Units (ID No. ES-9) consisting of:

Cells 4, and some cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 1DS) that vents to a Selective Catalytic NO_x Reduction System (ID No. 1SCR).

Over-cladding Units (ID No. ES-9a) consisting of:

Cells 6, 7, and remaining cell 5 units venting to Hydrated Lime Injection Dry Scrubber Fabric Filter System (ID No. 2DS) that vents to a Selective Catalytic NO_x Reduction System (ID No. 2SCR); and,

Chemical Room (ID No. ES-11) with Wet Scrubber System (ID No. 3WS); and,

SiCl₄ Storage Room (ID No. 18) with Wet Scrubber System (ID No. 3WS).

Etching Operations (ID No. ES-Etch) equipped with a Wet Scrubber System (ID No. 4WS)

The following provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	<p><u>STATE-ONLY REQUIREMENT</u> Emissions of HCl, Cl₂, HF, and NH₃ must be emitted at or below the emission rates tabulated in the next table in order to comply with the following acceptable ambient levels.</p> <p>HCl: 0.7 milligrams/cubic meter - 1hr</p> <p>Cl₂: 0.9 milligrams/ cubic meter - 1 hr and 0.0375 milligrams /cubic meter - 24 hr</p> <p>HF: 0.25 milligrams/cubic meter - 1hr 0.03 milligrams/cubic meter - 24 hr</p> <p>NH₃: 2.7 milligrams/cubic meter - 1hr</p>	15A NCAC 02D .1100

STATE-ONLY REQUIREMENT

1. 02D .1100 “CONTROL OF TOXIC AIR POLLUTANTS”

Emission Limits and Control Requirements

Affected Sources	Pollutant	Emission Limit
EP-11: Wet Scrubber #1 (ID No. 3WS) Envirocare #1 Includes emission from: Cells 5, 6, and 7 CVD (ID Nos. ES-1) Cells 5, 6, and 7 GC (ID No. ES-4), Cells 5, 6 and 7 CF (ID No. ES-14) Chemical Room (ID No. ES-11) SiCl ₄ Storage Room (ID No. ES-18)	Hydrogen Chloride Chlorine	9.063 lb/hr 5.582 lb/hr; and, 133.97 lb/day
EP-21 combined stack for SCRs	Ammonia	1.584 lb/hr per SCR

<p>EP-11: Wet Scrubber #1 (ID No. 3WS) Envirocare #1 Includes emission from: Cells 5, 6, and 7 CVD (ID Nos. ES-1) Cells 5, 6, and 7 GC (ID No. ES-4), Cells 5, 6 and 7 CF (ID No. ES-14) Chemical Room (ID No. ES-11) SiCl₄ Storage Room (ID No. ES-18)</p> <p>EP-18: dry scrubber (ID No. 1DS) or EP-21: SCR (ID No. 1SCR) Cells 4, and some cell 5 OC units (ID No. ES-9)</p> <p>EP-19: dry scrubber #1 (ID No. 2DS) or EP-21: SCR (ID No. 2SCR) Cells 6, 7, and remaining cell 5 OC units (ID No. ES-9a)</p> <p>EP-4WS: Wet Scrubber (ID No. 4WS) Includes emission from: Etching operations (ID No. ES-Etch)</p>	<p>Hydrogen Fluoride</p>	<p>2.67 lb/hr; and, 41.03 lb/day</p>
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- a. Emissions from the CVD processes will be controlled by the scrubber (**ID No. 3WS**).
- b. Emissions from the Over-cladding Units (**ID Nos. ES-9 and ES-9a**) shall be controlled by two fabric filters each with hydrated lime injection (**ID Nos. 1DS and 2DS**).
- c. **General**
If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

Monitoring, Recordkeeping and Reporting [15A NCAC 02Q .0508(f)]

- d. Monitoring, recordkeeping, and reporting pertain to inspection and maintenance of control devices and parametric monitoring to ensure control efficiencies. These are addressed above in 2.1 A.1.a.ii-viii. and 2.1 A.1.b.ii-vi.
- e. Continuous emission analyzers for ammonia emissions from the selective catalytic NO_x reduction systems (**ID Nos. 1SCR and 2SCR**) shall be inspected and maintained in accordance with the manufacturer's recommendations. As a minimum, the instruments shall be calibrated daily. Records of calibrations, inspections, and maintenance shall be kept in a logbook and maintained on site. Records shall be made available to the DAQ personnel upon request. All required records on file for a minimum of two years.

2.3 - Compliance Assurance Monitoring (CAM; 40 CFR Part 64)

A. One Fabric Filter with Hydrated Lime Injection (ID No. 1DS)

1. 15A NCAC 02D .0614: Continuous Assurance Monitoring for fabric filter with hydrated lime injection (ID No. 1DS)

- a. The Permittee shall ensure that PM emitted from the Over-cladding Units (**ID No. ES-9**) is controlled by a fabric filter (**ID No. 1DS**) by monitoring the following operating parameters:
 - i. Pressure drop across the fabric filter, and
 - ii. Lime injection rate.

Testing

- b. None.

Monitoring Approach - The key elements of the monitoring approach are presented in the following table.

- c. Pressure drop across the scrubber and water flow rate.

	<u>Indicator #1</u> Pressure drop across the fabric filter.	<u>Indicator #2</u> Lime injection rate.
Measurement Approach	Pressure drop across the fabric filter will be monitored with a differential pressure gauge.	Amount of lime will be monitored using batch hopper.
Indicator Range	An excursion is defined as an hourly average differential pressure (DP) less than 0.1 inches of water pressure drop or more than 9 inches of water pressure drop.	An excursion is defined as an injection rate reading less than 30 pounds per hour.
QIP Threshold	The QIP threshold is an excursion occurring at any time if the total duration of the excursions is greater than 5% of the total fabric filter operating time during the reporting period. An excursion triggers an inspection, corrective action, and a reporting requirement.	The QIP threshold is an excursion occurring at any time if the total duration of the excursions is greater than 5% of the total scrubber operating time during the reporting period. An excursion triggers an inspection, corrective action, and a reporting requirement.
Performance Criteria: Data Representativeness	Differential pressure taps are located at the fabric filter inlet and outlet.	The injection rate can be set to feed 30 dry pounds per hour and is verified once per 24-hour period.
Verification of Operational Status	Pressure drop within the Indicator Range indicates normal operation of the fabric filter.	Flow rate above the Indicator Range indicates normal operation of the lime injection system.
QA/QC Practices and Criteria	Daily zero checks to verify gauge operability. The pressure gauge is calibrated monthly using a second gauge and the gauge is replaced when the difference exceeds 5%.	The flow meter is calibrated annually based on manufacturer's instructions.
Monitoring Frequency	Continuous	Measured every 24-hour period

Data Collection Procedure	Manually, once per day.	Manually, once per day.
Averaging Period	N/A	24 hour

Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- d. The Permittee must maintain the following records on a monthly basis in accordance with the requirements of 40 CFR 64:
- Records specified in 40 CFR 64 of all measurements of operating parameters including:
 - Date and time of any corrective action taken.

Reporting [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- e. The Permittee shall submit a summary report of all monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
- Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

B. One Fabric Filter With Hydrated Lime Injection (ID No. 2DS)

1. 15A NCAC 02D .0614: Continuous Assurance Monitoring for fabric filter with hydrated lime injection (ID No. 2DS)

- a. The Permittee shall ensure that PM emitted from the Over-cladding Units (**ID No. ES-9a**) is controlled by a fabric filter (**ID No. 2DS**) by monitoring the following operating parameters:
- Pressure drop across the fabric filter, and
 - Lime injection rate.

Testing

- b. None.

Monitoring Approach - The key elements of the monitoring approach are presented in the following table.

- c. Pressure drop across the scrubber and water flow rate.

	<u>Indicator #1</u> Pressure drop across the fabric filter.	<u>Indicator #2</u> Lime injection rate.
Measurement Approach	Pressure drop across the fabric filter will be monitored with a differential pressure gauge.	Amount of lime will be monitored using batch hopper.
Indicator Range	An excursion is defined as an hourly average differential pressure (DP) less than	An excursion is defined as an injection rate reading less than 30 pounds per hour.

	0.1 inches of water pressure drop or more than 9 inches of water pressure drop.	
QIP Threshold	The QIP threshold is an excursion occurring at any time if the total duration of the excursions is greater than 5% of the total scrubber operating time during the reporting period. An excursion triggers an inspection, corrective action, and a reporting requirement.	The QIP threshold is an excursion occurring at any time if the total duration of the excursions is greater than 5% of the total scrubber operating time during the reporting period. An excursion triggers an inspection, corrective action, and a reporting requirement.
Performance Criteria: Data Representativeness	Differential pressure taps are located at the fabric filter inlet and outlet.	The injection rate can be is set to feed 30 dry pounds per hour and is verified once per 24-hour period.
Verification of Operational Status	Pressure drop within the Indicator Range indicates normal operation of the fabric filter.	Flow rate above the Indicator Range indicates normal operation of the lime injection system.
QA/QC Practices and Criteria	Daily zero checks to verify gauge operability. The pressure gauge is calibrated monthly using a second gauge and the gauge is replaced when the difference exceeds 5%.	The flow meter is calibrated annually based on manufacturer's instructions.
Monitoring Frequency	Continuous.	Measured every 24-hour period.
Data Collection Procedure	Manually, once per day.	Manually, once per day.
Averaging Period	N/A	24 hour

Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- d. The Permittee must maintain the following records on a monthly basis in accordance with the requirements of 40 CFR 64:
- i. Records specified in 40 CFR 64 of all measurements of operating parameters including:
 - (a) Date and time of any corrective action taken.

Reporting [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- e. The Permittee shall submit a summary report of all monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
- i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a

violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. Circumvention - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. Permit Modifications

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. Changes Not Requiring Permit Modifications

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.

4. Emissions Trading [15A NCAC 02Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. Duty to Provide Information (submittal of information) [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. Duty to Supplement [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. Retention of Records [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and

readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain

such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.

2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound